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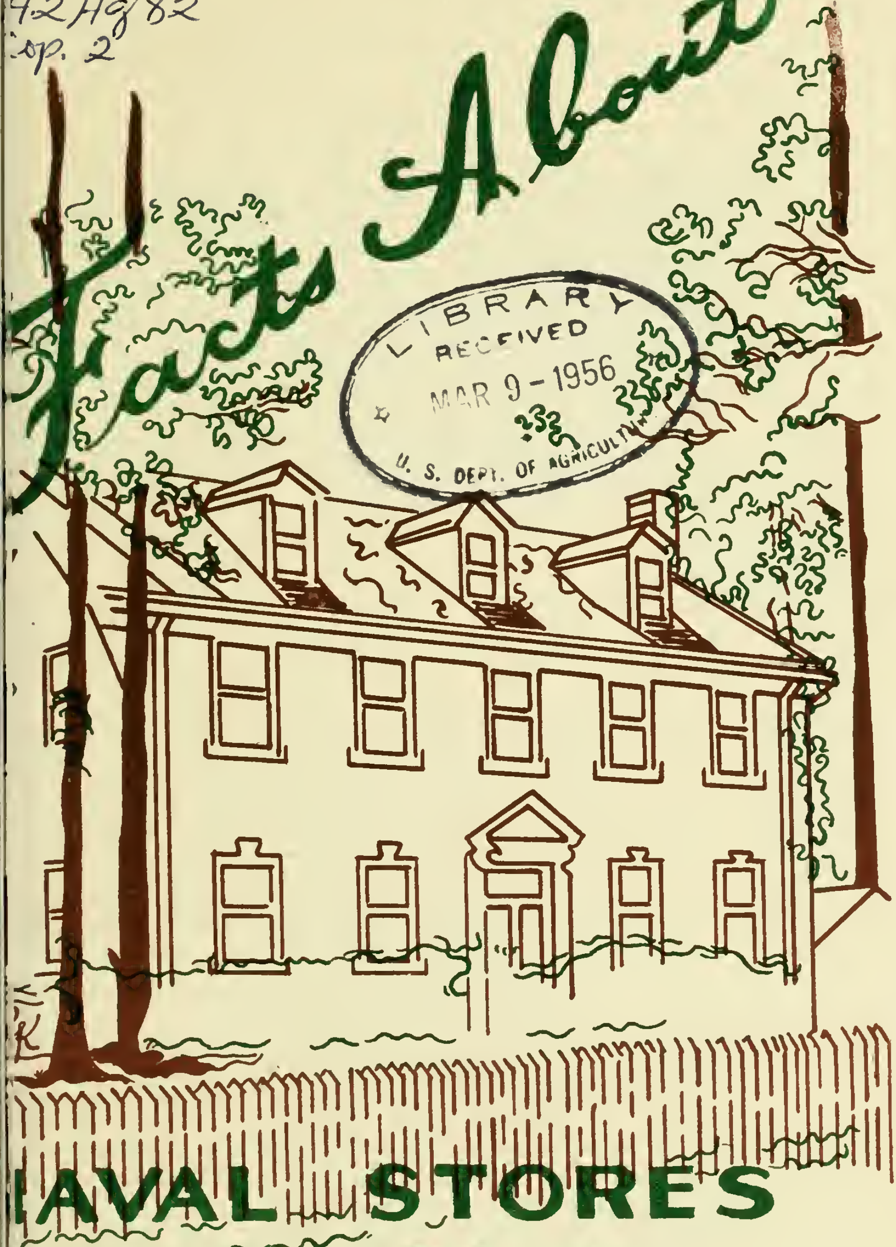

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AVAL STORES STATION

IC-345

Revised
January, 1956

The NAVAL STORES STATION was established by Congress in 1931 to do naval stores research in the pine regions of the South. Operations began in 1932. The Station is located 1 mile west of Olustee, Florida, 12 miles east of Lake City, on Highway US 90 and the Seaboard Airline Railway. The site of about 10 acres of land in the Osceola National Forest was made available by the U.S. Forest Service. Several brick and frame buildings comprise chemical laboratories, engineering pilot plant, administrative offices, machine shop, and boiler house. Two residential cottages and other auxiliary buildings are also on the grounds.

PINE GUM is the crop studied. From pine gum are made gum turpentine, gum rosin, and their derivatives. The conversion of these products into raw materials of greater utility and value for the chemical industry is being investigated to provide new and extended outlets for pine gum.

The administrative and research unit of the Station is the NAVAL STORES RESEARCH SECTION of the Southern Utilization Research Branch. This Branch is one of the four utilization branches of the Agricultural Research Service, United States Department of Agriculture.

The RESEARCH of the Section is conducted in 3 UNITS. The Fundamental Research Unit obtains new knowledge of the composition, properties, components, and derivatives of pine gum products. The Technological Research Unit seeks new and extended outlets for pine gum products through investigation of resins, condensation products, etc. The New Products Unit will prepare new chemical compounds from pine gum and its derivatives, and produce in laboratory quantities the amounts needed for evaluation studies. The Section normally employs about 31 persons -- chemists, chemical engineers, naval stores technologists, stenographers, clerks, mechanics, and laborers.

RESEARCH ACHIEVEMENTS include: A new method of buying and selling gum adopted on the basis of yield data; modernization of the gum naval stores industry through improvements in processing; improved quality of turpentine with low acid content; development of a continuous turpentine still for operations at atmospheric pressure; demonstration that the quality of turpentine and rosin is not affected by acid stimulation of pine trees; development of naval stores derivatives such as disproportionated rosin, maleo-pimaric acid, new and improved metal resinates, terpene hydroperoxide and pinic acid; development of analytical methods for the determination of the various components and classes of components of turpentine, of rosin and of pine gum; contribution to the knowledge of the chemical behavior of individual components of pine gum, turpentine and rosin by chemical or by thermal treatment.

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ADMINISTRATIVE ORGANIZATION

E. L. Patton, Head

Naval Stores Research Section

Naval Stores Station

Olustee, Florida

C. H. Fisher, Chief of Branch

Southern Utilization Research Branch

New Orleans, Louisiana

G. E. Hilbert, Director of Utilization Research

Agricultural Research Service

U. S. Department of Agriculture

Washington, D. C.